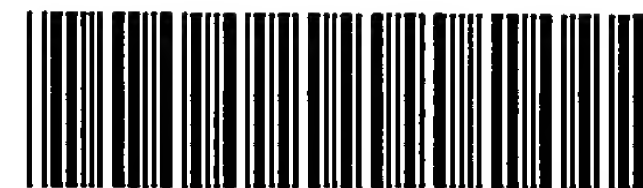


RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 09/955,502A
Source: 1Fw16
Date Processed by STIC: 12/30/05

ENTERED



IFW16

RAW SEQUENCE LISTING

DATE: 12/30/2005

PATENT APPLICATION: US/09/955,502A

TIME: 09:32:37

Input Set : A:\960296.97559.txt

Output Set: N:\CRF4\12302005\I955502A.raw

3 <110> APPLICANT: Downs, Diana M.
 4 Gralnick, Jeff A.
 6 <120> TITLE OF INVENTION: Method for Preventing Superoxide Damage to Cells and
 7 Oxygen-Labile Proteins
 9 <130> FILE REFERENCE: 960296.97559
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/09/955,502A
 C--> 11 <141> CURRENT FILING DATE: 2001-09-18
 11 <160> NUMBER OF SEQ ID NOS: 45
 13 <170> SOFTWARE: PatentIn version 3.3
 15 <210> SEQ ID NO: 1
 16 <211> LENGTH: 65
 17 <212> TYPE: PRT
 18 <213> ORGANISM: Artificial
 20 <220> FEATURE:
 21 <223> OTHER INFORMATION: synthetic YggX consensus sequence
 24 <220> FEATURE:
 25 <221> NAME/KEY: UNSURE
 26 <222> LOCATION: (2)..(2)
 27 <223> OTHER INFORMATION: can be any amino acid
 29 <220> FEATURE:
 30 <221> NAME/KEY: UNSURE
 31 <222> LOCATION: (4)..(6)
 32 <223> OTHER INFORMATION: can be any amino acid
 34 <220> FEATURE:
 35 <221> NAME/KEY: UNSURE
 36 <222> LOCATION: (8)..(22)
 37 <223> OTHER INFORMATION: can be any amino acid
 39 <220> FEATURE:
 40 <221> NAME/KEY: UNSURE
 41 <222> LOCATION: (24)..(26)
 42 <223> OTHER INFORMATION: can be any amino acid
 44 <220> FEATURE:
 45 <221> NAME/KEY: UNSURE
 46 <222> LOCATION: (28)..(38)
 47 <223> OTHER INFORMATION: can be any amino acid
 49 <220> FEATURE:
 50 <221> NAME/KEY: UNSURE
 51 <222> LOCATION: (40)..(41)
 52 <223> OTHER INFORMATION: can be any amino acid
 54 <220> FEATURE:
 55 <221> NAME/KEY: UNSURE
 56 <222> LOCATION: (43)..(45)
 57 <223> OTHER INFORMATION: can be any amino acid

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/955,502A

DATE: 12/30/2005

TIME: 09:32:37

Input Set : A:\960296.97559.txt

Output Set: N:\CRF4\12302005\I955502A.raw

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59 <220> FEATURE:
60 <221> NAME/KEY: UNSURE
61 <222> LOCATION: (48)..(48)
62 <223> OTHER INFORMATION: can be any amino acid
64 <220> FEATURE:
65 <221> NAME/KEY: UNSURE
66 <222> LOCATION: (50)..(50)
67 <223> OTHER INFORMATION: can be any amino acid
69 <220> FEATURE:
70 <221> NAME/KEY: UNSURE
71 <222> LOCATION: (53)..(54)
72 <223> OTHER INFORMATION: can be any amino acid
74 <220> FEATURE:
75 <221> NAME/KEY: UNSURE
76 <222> LOCATION: (56)..(62)
77 <223> OTHER INFORMATION: can be any amino acid
79 <220> FEATURE:
80 <221> NAME/KEY: UNSURE
81 <222> LOCATION: (64)..(65)
82 <223> OTHER INFORMATION: can be any amino acid
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      87 1          5          10          15
W--> 90 Xaa Xaa Xaa Xaa Xaa Xaa Pro Xaa Xaa Xaa Gly Xaa Xaa Xaa Xaa Xaa
      91          20          25          30
W--> 94 Xaa Xaa Xaa Xaa Xaa Xaa Trp Xaa Xaa Trp Xaa Xaa Xaa Gln Thr Xaa
      95          35          40          45
W--> 98 Leu Xaa Asn Glu Xaa Xaa Leu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Arg Xaa
      99          50          55          60
W--> 102 Xaa
      103 65
106 <210> SEQ ID NO: 2
107 <211> LENGTH: 87
108 <212> TYPE: PRT
109 <213> ORGANISM: Bordetella pertussis
111 <400> SEQUENCE: 2
113 Met Ser Arg Ile Val Asn Cys Val Lys Leu Lys Arg Glu Ala Glu Gly
114 1          5          10          15
117 Leu Asp Phe Pro Pro Tyr Pro Gly Glu Leu Gly Thr Arg Ile Trp Gln
118          20          25          30
121 Gln Ile Ser Lys Glu Ala Trp Glu Glu Trp Lys Gln Ile Gln Thr Arg
122          35          40          45
125 Leu Val Asn Glu Asn Arg Leu Asn Leu Ala Asp Ala Arg Ala Arg Lys
126          50          55          60
129 Tyr Leu Gln Gln Gln Met Glu Arg Phe Leu Phe Glu Asp Gly Thr Val
130 65          70          75          80
133 Glu Ala Gln Gly Tyr Val Pro
134          85
137 <210> SEQ ID NO: 3

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/955,502A

DATE: 12/30/2005

TIME: 09:32:37

Input Set : A:\960296.97559.txt

Output Set: N:\CRF4\12302005\I955502A.raw

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138 <211> LENGTH: 87
139 <212> TYPE: PRT
140 <213> ORGANISM: Bordetella parapertussis
142 <400> SEQUENCE: 3
144 Met Ser Arg Ile Val Asn Cys Val Lys Leu Lys Arg Glu Ala Glu Gly
145 1          5          10          15
148 Leu Asp Phe Pro Pro Tyr Pro Gly Glu Leu Gly Thr Arg Ile Trp Gln
149          20          25          30
152 Gln Ile Ser Lys Glu Ala Trp Glu Glu Trp Lys Gln Ile Gln Thr Arg
153          35          40          45
156 Leu Val Asn Glu Asn Arg Leu Asn Leu Ala Asp Ala Arg Ala Arg Lys
157          50          55          60
160 Tyr Leu Gln Gln Gln Met Glu Arg Phe Leu Phe Glu Asp Gly Thr Val
161 65          70          75          80
164 Glu Ala Gln Gly Tyr Val Pro
165          85
168 <210> SEQ ID NO: 4
169 <211> LENGTH: 86
170 <212> TYPE: PRT
171 <213> ORGANISM: Bordetella bronchiseptica
173 <400> SEQUENCE: 4
175 Met Ser Arg Ile Val Asn Cys Val Lys Leu Lys Arg Glu Ala Glu Gly
176 1          5          10          15
179 Leu Asp Phe Pro Pro Tyr Pro Gly Glu Leu Gly Thr Arg Ile Trp Gln
180          20          25          30
183 Gln Ile Ser Lys Glu Ala Trp Glu Glu Trp Lys Gln Ile Gln Thr Arg
184          35          40          45
187 Leu Val Asn Glu Asn Arg Leu Asn Leu Ala Asp Ala Arg Ala Arg Lys
188          50          55          60
191 Tyr Leu Gln Gln Gln Met Glu Arg Phe Leu Phe Glu Asp Gly Thr Val
192 65          70          75          80
195 Glu Ala Gln Gly Val Pro
196          85
199 <210> SEQ ID NO: 5
200 <211> LENGTH: 91
201 <212> TYPE: PRT
202 <213> ORGANISM: Actinobacillus actinomycetemcomitans
204 <400> SEQUENCE: 5
206 Met Ala Arg Met Val Phe Cys Glu Arg Leu Lys Gln Glu Ala Glu Gly
207 1          5          10          15
210 Leu Asp Phe Gln Leu Tyr Pro Gly Glu Leu Gly Lys Arg Ile Phe Asp
211          20          25          30
214 Ser Ile Ser Lys Gln Ala Trp Gly Glu Trp Met Lys Lys Gln Thr Met
215          35          40          45
218 Leu Val Asn Glu Lys Lys Leu Asn Met Met Asn Ala Glu His Arg Lys
219          50          55          60
222 Leu Leu Glu Gln Glu Met Val Asn Phe Leu Phe Glu Gly Lys Asp Val
223 65          70          75          80
226 His Ile Glu Gly Tyr Thr Pro Pro Glu Ala Lys

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/955,502A

DATE: 12/30/2005

TIME: 09:32:37

Input Set : A:\960296.97559.txt

Output Set: N:\CRF4\12302005\I955502A.raw

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227      85      90
230 <210> SEQ ID NO: 6
231 <211> LENGTH: 87
232 <212> TYPE: PRT
233 <213> ORGANISM: Pasteurella multocida
235 <400> SEQUENCE: 6
237 Met Ala Arg Thr Val Phe Cys Glu Tyr Leu Lys Gln Glu Ser Glu Gly
238 1      5      10      15
241 Leu Asp Phe Gln Leu Tyr Pro Gly Glu Leu Gly Lys Arg Ile Phe Asp
242      20      25      30
245 Ser Ile Ser Lys Gln Ala Trp Arg Glu Trp Met Lys Lys Gln Thr Met
246      35      40      45
249 Leu Val Asn Glu Lys Lys Leu Asn Met Met Asn Ala Asp His Arg Gln
250      50      55      60
253 Leu Leu Glu Gln Glu Met Val Asn Phe Leu Phe Glu Gly Lys Asp Val
254 65      70      75      80
257 His Ile Glu Gly Tyr Val Pro
258      85
261 <210> SEQ ID NO: 7
262 <211> LENGTH: 87
263 <212> TYPE: PRT
264 <213> ORGANISM: Haemophilus influenzae
266 <400> SEQUENCE: 7
268 Met Ala Arg Thr Val Phe Cys Glu Tyr Leu Lys Lys Glu Ala Glu Gly
269 1      5      10      15
272 Leu Asp Phe Gln Leu Tyr Pro Gly Glu Leu Gly Lys Arg Ile Phe Asp
273      20      25      30
276 Ser Val Ser Lys Gln Ala Trp Gly Glu Trp Ile Lys Lys Gln Thr Met
277      35      40      45
280 Leu Val Asn Glu Lys Lys Leu Asn Met Met Asn Ala Glu His Arg Lys
281      50      55      60
284 Leu Leu Glu Gln Glu Met Val Asn Phe Leu Phe Glu Gly Lys Asp Val
285 65      70      75      80
288 His Ile Glu Gly Tyr Val Pro
289      85
292 <210> SEQ ID NO: 8
293 <211> LENGTH: 87
294 <212> TYPE: PRT
295 <213> ORGANISM: Haemophilus ducreyi
297 <400> SEQUENCE: 8
299 Met Ala Arg Met Val Phe Cys Glu Tyr Leu Lys Lys Glu Ala Glu Gly
300 1      5      10      15
303 Leu Asp Phe Gln Leu Tyr Pro Gly Glu Leu Gly Lys Arg Ile Phe Asn
304      20      25      30
307 Ser Ile Ser Lys Gln Ala Trp Ala Glu Trp Ile Lys Lys Gln Thr Met
308      35      40      45
311 Leu Val Asn Glu Lys Lys Leu Asn Met Met Asn Pro Glu His Arg Gln
312      50      55      60
315 Leu Leu Glu Ala Glu Met Val Asn Phe Leu Phe Glu Gly Lys Asp Val

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/955,502A

DATE: 12/30/2005

TIME: 09:32:37

Input Set : A:\960296.97559.txt

Output Set: N:\CRF4\12302005\I955502A.raw

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316 65              70              75              80
319 His Ile Asp Gly Tyr Val Pro
320              85
323 <210> SEQ ID NO: 9
324 <211> LENGTH: 88
325 <212> TYPE: PRT
326 <213> ORGANISM: Shewanella putrefaciens
328 <400> SEQUENCE: 9
330 Met Ala Arg Thr Val Asn Cys Val His Leu Asn Lys Glu Ala Asp Gly
331 1              5              10              15
334 Leu Asp Phe Gln Leu Tyr Pro Gly Asp Leu Gly Lys Arg Ile Phe Asp
335              20              25              30
338 Asn Ile Ser Lys Glu Ala Trp Gly Leu Trp Gln Lys Lys Gln Thr Met
339              35              40              45
342 Leu Ile Asn Glu Lys Lys Leu Asn Met Met Asn Val Asp Asp Arg Lys
343              50              55              60
346 Phe Leu Glu Ala Gln Met Thr Ser Phe Leu Phe Glu Gly Lys Asp Val
347 65              70              75              80
350 Glu Ile Glu Gly Phe Val Pro Glu
351              85
354 <210> SEQ ID NO: 10
355 <211> LENGTH: 90
356 <212> TYPE: PRT
357 <213> ORGANISM: Vibrio cholerae
359 <400> SEQUENCE: 10
361 Met Ala Arg Thr Val Phe Cys Thr Arg Leu Gln Lys Glu Ala Asp Gly
362 1              5              10              15
365 Leu Asp Phe Gln Leu Tyr Pro Gly Glu Leu Gly Lys Arg Ile Phe Asp
366              20              25              30
369 Asn Ile Cys Lys Glu Ala Trp Ala Gln Trp Gln Thr Lys Gln Thr Met
370              35              40              45
373 Leu Ile Asn Glu Lys Lys Leu Asn Met Met Asp Pro Glu His Arg Lys
374              50              55              60
377 Leu Leu Glu Gln Glu Met Val Asn Phe Leu Phe Glu Gly Lys Glu Val
378 65              70              75              80
381 His Ile Glu Gly Tyr Thr Pro Pro Ala Lys
382              85              90
385 <210> SEQ ID NO: 11
386 <211> LENGTH: 91
387 <212> TYPE: PRT
388 <213> ORGANISM: Escherichia coli K-12 MG1655
390 <400> SEQUENCE: 11
392 Met Ser Arg Thr Ile Phe Cys Thr Phe Leu Gln Arg Glu Ala Glu Gly
393 1              5              10              15
396 Gln Asp Phe Gln Leu Tyr Pro Gly Glu Leu Gly Lys Arg Ile Tyr Asn
397              20              25              30
400 Glu Ile Ser Lys Glu Ala Trp Ala Gln Trp Gln His Lys Gln Thr Met
401              35              40              45
404 Leu Ile Asn Glu Lys Lys Leu Asn Met Met Asn Ala Glu His Arg Lys

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/955,502A

DATE: 12/30/2005
TIME: 09:32:38

Input Set : A:\960296.97559.txt
Output Set: N:\CRF4\12302005\I955502A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. ~~2,4,5,6,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,24,25~~
Seq#:1; Xaa Pos. ~~26,28,29,30,31,32,33,34,35,36,37,38,40,41,43,44,45,48,50~~
Seq#:1; Xaa Pos. ~~53,54,56,57,58,59,60,61,62,64,65~~

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1

VERIFICATION SUMMARY

DATE: 12/30/2005

PATENT APPLICATION: US/09/955,502A

TIME: 09:32:38

Input Set : A:\960296.97559.txt

Output Set: N:\CRF4\12302005\I955502A.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:86 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:90 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:16
L:94 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:32
L:98 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:48
L:102 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:64